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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,962	02/20/2002	Atsushi Imamura	50063-063	3167

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McDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

ALAVI, AMIR

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/077,962

Applicant(s)

IMAMURA ET AL.

Examiner

Amir Alavi

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 22-26 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 and 14-21 is/are allowed.
- 6) ☒ Claim(s) 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date _____.

- 4) ☒ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. 20050928
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

- Applicant's arguments filed 28 July 2005 have been fully considered but they are not persuasive.
- Applicant argues in essence that the cited prior art does not utilize a multi dimensional color space.
- Examiner disagrees and indicates that the cited prior art reasonably address limitations of the claimed invention. Applicant is reminded that Examiner will interpret each claim in the broadest reasonable sense, as such, the claims and only the claims form the metes and bounds of the invention. In this regard, Examiner considers the cited prior art, namely, Kitamura-USPN-5,263,095, column 10, lines 64-68 and column 11, lines 1-2, in which image in various colors is displayed on the color monitor 53. In this regard, Examiner considers any color space, such as, RGB, CMYK, etc. to inherently contain more than one dimension, hence, multi dimensional.

Claim Rejections - 35 USC § 102

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Kitamura (USPN 5,263,095).

Regarding claim 13, Kitamura, discloses: a lookup table that has an arbitrary individual color within a multi dimensional color space as input and a color number indicating one among plural representative colors as output (please note, figures 11 and 13, in correlation to column 10, lines 38-48. In this regard, Examiner considers the system color table SCT of figure 13 to correspond to Applicant's lookup table, wherein Ns values, corresponds to Applicant's individual colors, which are input to the lookup table, while, Nd values, which are output in the lookup table, and are referred to as the display color numbers, in this, wherein values of zero for Nd indicates of the presence of color white, meanwhile values of one for Nd represents color black, this being representative of plural colors. Also, please note, column 10, lines 64-

68 and column 11, lines 1-2, in which image in various colors is displayed on the color monitor 53. In this regard, Examiner considers any color space, such as, RGB, CMYK, etc. to inherently contain more than one dimension, hence, multi dimensional); and a color region divider configured to obtain a representative color number for each pixel color in the color image with the aid of the lookup table, and to classify each pixel in the color image into one of plural representative color regions associated with the plural representative colors according to the representative color numbers, thereby dividing the image region of the color image into the plural representative color regions (please note, figures 11 and 13, in correlation to column 10, lines 38-48. As indicated a system color table SCT is prepared which shows the relation between the system color numbers N_s and the display color numbers N_d , wherein the display number $N_d=1$ representing a black portion is registered for the separate areas R22, R25, and R26 corresponding to the linework elements, while the display number $N_d=0$ representing a white portion is registered for the separate areas R21, R23, and R24 corresponding to the white background of the layout sheet. In this regard, it is clear that figure 11 is segmented into six distinctive portions, namely, R21-R26 and accordingly has been classified into one of plural representative color numbers, namely, color number $N_d=1$ of black portions and color number $N_d=0$ of white portions).

Allowable Subject Matter

- Claims 1-12 and 14-21 are allowed.
- The following is a statement of reasons for the indication of allowable subject matter: The present invention is directed to a method for dividing an image region of a color image according to colors. Independent claims 1, 9 and 14 identify the uniquely distinct feature, “ for calculating plural composite distance indices for each pixel color in the color image based on the distance indices and the angle indices, the plural composite distance indices being associated with the plurality of representative colors; and classifying pixels in the color image into plural representative color regions associated with the plural representative colors, according to the composite distance indices, thereby dividing the image region of the color image into the plural representative color regions”; Independent claims 5 and 18 identify the uniquely distinct feature, “ for calculating composite distance indices for each arbitrary individual color in the color space based on the distance indices and the angle indices, the plural composite distance indices being associated with the plurality of

representative colors, respectively and relating each arbitrary individual color in the color space with one of the plural representative colors according to the composite distance indices, and preparing a lookup table storing the correspondence between each arbitrary individual color and the plural representative colors". The closest prior art, Takaha (USPN 6,021,221), discloses wherein a central processing circuit firstly subdivides the basic image into a plurality of division regions which are like in color, in units of pixel groups, subsequently, the central processing circuit calculates distances between pixels within the division region and pixels within the contour region, and also calculates positions of pixels with respect to the initial region, and then determines factor values for the respective pixels on the basis of distance values indicative of the distance and the position; while Maggioni (USPN 5,828,779), discloses method for constructing a color table in a computer unit for the classification of picture elements in an image, either singularly or in combination, fail to anticipate or render the above underlined limitation obvious.

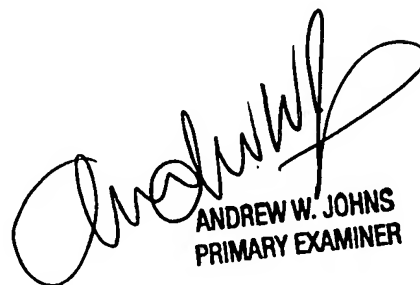
Conclusion

- **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
- A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amir Alavi whose telephone number is 571-272-7386.
- The examiner can normally be reached on Mon-Thu.. 8:00 am thru 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph Mancuso can be reached on 571-272-7695.
- The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.
- For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AA
Group Art Unit 2621
03 October 2005


ANDREW W. JOHNS
PRIMARY EXAMINER